

PATENT COOPERATION TREATY

EUR/SHU

From the
INTERNATIONAL SEARCHING AUTHORITY

written opinion

rapporten aan client:

27-3-'06

PCT 27-5-'06

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/NL2004/000890

International filing date (day/month/year)
20.12.2004

Priority date (day/month/year)
19.12.2003

International Patent Classification (IPC) or both national classification and IPC
C23C18/32, F16C33/62, F16C33/64, F16C33/30, F16C33/44, F16C33/56, C25D7/10, C25D5/14

Applicant
AB SKF

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx. 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Gregg, N

Telephone No. +31 70 340-3574



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2004/000890

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:
see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2004/000890

**Box No. V Reasoned statement under Rule 43b/s.1(a)(I) with regard to novelty, inventive step or
Industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3-9
	No: Claims	1,2,10-15
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/NL2004/000890

PRIORITY

It is noted that there was no basis in the priority document to support the priority claimed as concerned the subject-matter relating to the strike coating as per claims 3 to 5 and 10 to 15.

NOVELTY AND INVENTIVE STEP

- D1: PATENT ABSTRACTS OF JAPAN vol. 014, no. 526 (G-0779), 19 November 1990 (1990-11-19) - & JP 02 219894 A (TOYOTA MOTOR CORP), 3 September 1990 (1990-09-03)
- D2: PATENT ABSTRACTS OF JAPAN vol. 013, no. 225 (M-830), 25 May 1989 (1989-05-25) - & JP 01 041649 A (RIKEN CORP), 13 February 1989 (1989-02-13)
- D3: D.N.LAPEDES: "Dictionary of Scientific and Technical Terms" 1978, MCGRAW-HILL, US, XP002367510

It is noted that the present set of claims includes two independent claims and associated dependent claims. Claims 1 to 9 concentrate on the compositional and thickness features of the Ni-P coating with mention in claims 3 to 5 of the strike coat. Claims 10 to 15 concentrate on the application of the strike coat in a Ni-P plated bearing.

Document D1 discloses a Ni -2-13wt% P plating to an iron sliding member (abstract).

Document D2 discloses how the application of a thin strike layer of Ni improves the adhesion of a Ni-P coating to piston rings (abstract) which in the examples appear to be made from the ferritic stainless steel SUS440B.

D3 simply confirms the acceptance of the term "strike plating" within the art.

Neither D1 nor D2 explicitly disclose a roller bearing made from a ball bearing steel. However, it is noted that lack of novelty may arise from inherent or implicit features in a published document (Guidelines PCT/GL/ISPE/1 12.04). In the present case both D1 and D2 are considered to relate to sliding bearing surfaces equivalent to the surface action of a

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/NL2004/000890

roller bearing which in both cases have a ferrous substrate.

D2 is therefore considered prejudicial to the novelty of the subject-matter of claims 10 to 15, the matter of the dependent claims (strike application method etc) also being directly derivable as the normal practice in the art (Art 33(2) PCT).

D1 is therefore considered prejudicial to the novelty of claims 1,2,6,7 and also 8 and 9 after consideration of the last paragraph on page 5 (Art. 33(2) PCT) and the subject matter of claims 3 to 5 is not considered inventive in the light of a logical combination of the teachings of D1 and D2 when the skilled person would attempt to solve the problem of increasing the adhesion of the Ni-P coating (Art 33(3) PCT).

Industrially applicable in the production of bearings.